little doubt that the prices associated with short-term competition are substantially lower than the prices that have emerged from more durable competition.[3]

Removing either municipal markets or short-term overbuilds from the FCC's sample and re-estimating the benchmark equation causes the benchmark prices to increase. When both are removed, the benchmarks for small systems increase by 13%.

say that the price charged by B provides the appropriate benchmark for regulating A's price. That is true because the two systems provide identical services and operate in identical environments, so the price charged by B reveals the price that A would charge if it, also, were operating in a competitive market.

But, pursuing this example, the benchmark that the FCC plans to apply to system A is not the price charged by B, but rather the price that the FCC's equation predicts that B charges. That makes it important for the benchmark equation to be able to predict accurately the prices charged by the "competitive" systems. To revert again to the previous example, suppose more concretely that system B charges $20 per month for basic service, but the FCC's equation predicts that it charges $16 per month. Then system A would be limited to a $16 price, even though the correct benchmark is $20. This problem would not arise, obviously, if the equation correctly predicted the prices charged by competitive systems. Whether the FCC equation does accurately predict "competitive" prices is therefore quite important.

In order to accurately predict competitive service prices, it is necessary to take into account all of the factors significantly influencing the price formation in competitive markets. For example, cable distribution plant installed underground is considerably more expensive that aerial distribution, and the proportion of plant underground varies widely from one system to another. If that factor has an important influence on prices charged in competitive markets, but is ignored by the equation used to predict competitive service prices, it is quite unlikely that the predictions made by the equation would be very accurate. The FCC equation predicts service prices in competitive markets by taking into account

only three factors: the number of subscribers, the number of channels, and the number of satellite-delivered channels.

Whether those three variables are adequate to accurately predict competitive prices is ultimately an empirical matter. The ideal test would be to draw a new, random sample of "competitive" cable systems and determine how accurately their prices are predicted by the FCC equation. An easier test is to examine how well the FCC equation predicts the prices of "competitive" systems in its database. Since the equation is based importantly on those particular systems, I would expect it to predict those prices more accurately than prices charged by a new sample of competitive cable systems, or competitive systems in general. In other words, if the equation does not predict accurately the prices of competitive systems in the sample from which it was estimated, it is even less likely to do so when applied to competitive systems in general.

A comparison of the prices charged by small competitive cable systems in the FCC sample with the prices predicted for those systems by the FCC equation reveals some large errors. The FCC's benchmark equation is incapable of accounting for almost one-half of the price variations among small cable systems. Of the 45 small competitive cable systems in the FCC sample, the FCC's benchmark equation understates the prices charged by 20 of the systems and overstates the prices of the remainder. Both types of errors, of course, are undesirable. But errors in the direction of understating the prices actually charged by the benchmark systems are more serious, since they raise the possibility that comparable systems subject to regulation will be incapable of recovering their costs, and thus threatened with the prospect of going out of business.

The outcome that 20 of the 45 small competitive systems used by the FCC are themselves above the FCC benchmarks can be viewed from a different perspective. Although "noncompetitive" systems charging the same rates would have to reduce their prices, the "competitive" systems do not.

Of the 20 small competitive systems with higher than predicted rates, their prices exceeded by 26% the prices predicted by the FCC equation, on average. To examine these underestimates in more detail, I arranged the 20 cable systems in the order of how much their prices exceeded the predicted prices, and then divided the ordered list into groups of five. I then calculated, for each group of five, the average amount by which the actual price exceeded the price predicted by the FCC. The results are displayed on the following table.

Actual Competitive Prices Relative to Benchmark Prices

1st Quartile	4.2%	higher
2nd Quartile	12.3%	higher
3rd Quartile	17.4%	higher
4th Quartile	85.6%	higher

The lowest quartile charges prices that exceed the FCC benchmarks by an average of 4%. But prices charged by competitive systems in the fourth quartile are fully 85% above the FCC's benchmarks. It is difficult to resist the conclusion that, in such instances, the FCC benchmarks would deprive small cable systems of the opportunity to recover the cost of providing service.

William Shew

Executed on June 10, 1993

CABLE TELEVISION STUDIES AND TESTIMONY OF BILL SHEW

A. Rate of Return Regulation

1. Development of a methodology to identify the appropriate measure of basic service cost, in the context of regulating the rate of return cable systems earn on basic service (rate case).

2. Analysis of the appropriate treatment of start-up costs in determining permissible prices under rate of return regulation (rate case).

B. Cost of Service

1. Regression analysis of the cost structure of 120 cable systems, as it relates to population density, channel capacity, subscribers, etc.

2. Study of average total cost and incremental cost of supplying basic, enhanced basic, and pay services, using engineering and accounting data.

3. Estimation of the cost of capital to a cable company, using variants of CAPM.

C. Competition Issues/Antitrust

1. Analysis of whether cable television is a natural monopoly and whether direct competition is viable and desirable (predatory pricing suit).

2. Analysis of whether a cable overbuild is commercially sustainable over the long run.

3. Analysis of whether merger of competing cable systems is in the public interest (FTC investigation).

4. Study of the market in which cable television competes (state regulation).

5. Statistical analysis of the market in which premium movie channels compete, and whether vertically integrated cable companies (programming, distribution) engage in discrimination (antitrust suit).

6. Assessment of the appropriate public policy governing non-cable distributors' access to "cable" channels (FCC docket)

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Director of Economic Studies Specializing in the economics of the media, telecommunications, market regulation, and competition policy.

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PUBLICATIONS AND CONFERENCE PAPERS:

- "Telecommunications Infrastructure: Is There a Role for Government?", The American Enterprise Institute (forthcoming).
- "Copyright Harmonization and Efficient Trade in Films", British Screen Advisory Council Conference on EC Copyright Policy, London, February 1993.
- "In Search of Leisure," The American Enterprise Institute, September 1992.
- "Trends in The Organization of Program Production," Paying for Broadcasting, Routledge Press, 1992.
- "Auctioning the Airwaves," The American Enterprise Institute, September 1991.
- "Measuring Pluralism, Diversity and Concentration in a Multi-Media Society," European Conference on the Press, Brussels, May 1991.
- "Peak-Responsibility Methodology for Regulating Telephone Prices," Telecommunications Deregulation, Quorum Books, 1990.
- "Antitrust Analysis of Shared Financial Networks," NERA Antitrust and Trade Regulation Seminar, Santa Fe, New Mexico, July 1989.
- "Market Mechanisms to Allocate Radio Spectrum," University of Canterbury, Christchurch, New Zealand, July 22, 1988.
- "Current Issues in Telecommunications Regulation: Pricing" (with Alfred E. Kahn), The Yale Journal on Regulation, Spring 1987.
- "Pricing Local Calls: How Much Imperfection is Perfect?" Telecommunications in a Competitive Environment, NERA, Phoenix, Arizona, March 6, 1987.
- "The Profit Outlook for Cable Television in Britain," The Economist Intelligence Unit's Conference on Cable and Satellite Television, Birmingham, England, September 13, 1983. Reprinted in Cable and Satellite Television: Risk, Reward and Reality, Spencer House, London, 1984.
- "Can Cabling Britain Be Profitable?" Cable Television Conference, Hyde Park Hotel, London, England, April 14, 1983.
- "How to Assess the Value of Electricity Reliability," EPRI Seminar on the Value of Service Reliability to Consumers, Boston, Massachusetts, April 5-7, 1983.
- "A Methodology for Determining Optimal Generating Capacity," EPRI Workshop on Value of Reliability, Mackinac Island, Michigan, October 1979.

- "The Cost of Inadequate Generating Capacity," EPRI Conference on Electricity Shortage Costs, Asilomar, California, September 1978.
- "Supply Restrictions as Environmental Policy," Environmental Aspects of Non-Conventional Energy Resource II Topical Meeting, American Nuclear Society, September 1978.
- "Costs of Inadequate Capacity in the Electric Utility Industry," Energy Systems and Policy, 1977.
- "Load-Management Potential -- An Overview," Load Management, Federal Energy Administration Conservation Paper No. 24, 1975.
- "The Economic Dilemma for Consumers and the Utilities," Cornell University Energy Forum, January 1975.

- "Regulation of the Scrambling of Satellite Television Signals," FCC Inquiry into the Scrambling of Satellite Television Signals and Access to those Signals by Owners of Home Satellite Dish Antennas, Docket No. 86-336 (with Paul L. Joskow), November 10, 1986.

- Regulation of Entry into the Market for Cellular Mobile Service, Federal Communications Commission, March 1984.

- Rental Value of a Hydroelectric Site, testimony before the Federal Energy Regulatory Commission, Hydroelectric Project No. 5, January 1984.

- "Railroad Exemption – Export Coal," Verified Statement, Interstate Commerce Commission, Ex Parte No. 346 (Sub-No. 7), December 18, 1981.

- "Effectiveness of Time-of-Use Electricity Pricing," testimony before the New York Public Service Commission, Case 27319, November 1978.

- "An Economic Evaluation of Automobile Bumper Standards," NHTSA Hearings on Bumper Standards, April 1975.

SELECTED REPORTS:

- "Switched Voice Telephone Interconnection Policies," prepared for OFTEL (UK Office of Telecommunications) (with David Starkie), April 1992.

- "Telecommunications Privatization in New Zealand," prepared for the New Zealand government, (with Robin Foster and Jeffrey Rohlfs), May 1989.

- "Economic Prospects for Six Asian Countries," prepared for American Airlines (with Nathaniel Jackson), May 1989.

- "Management of the Radio Frequency Spectrum in New Zealand," prepared for the New Zealand Government, (with Robin Foster, Phillipa Marks, Charles Jackson and Robyn Durie), November 1988.

- "Determining the Cost of Telephone Services: A Survey of Issues," prepared for the New York Telephone Company, February 1988.

- "Obligation to Serve in Competitive Electricity Markets," prepared for consortium of electric utilities, January 1987.

- "Assessing Anticompetitive Behaviour in the UK Telecommunications Industry," prepared for the Office of Telecommunications (OFTEL), Britain, August 1986.

- Welfare Gains from Local Measured Telephone Service (simulation model), prepared for Pacific Northwest Bell, 1985.

- Profitability of Jointly Supplying Local Telephone and Cable Television Services (simulation model), prepared for Mercury Ltd., 1984.

- "Costs of Cable Television Franchise Requirements," prepared for the National Cable Television Association, 1984.

- "Quantity-Dependent Pricing of Telephone Service," prepared for New England Telephone, 1983.

- "Regulation of Emissions by Production Permits," prepared for E. I. DuPont DeNemours & Company, (with Lewis J. Perl), October 17, 1979.

Exhibit I

DECLARATION OF JAY BUSCH

I, Jay Busch, hereby declare under penalty of perjury that the following is true and correct to the best of my knowledge, information and belief:

1. My name is Jay Busch. I am President of Triax Communications Corporation. Triax operates approximately 460 cable systems in 17 states, and provides cable service to approximately 345,000 subscribers.

2. Triax operates a large number of cable systems that would be severely affected by application of the Federal Communications Commission's rate regulation benchmarks.

3. For example, Triax operates a cable system in Wilsonville, Illinois.

4. In 1992 the system had total revenues of $32,000.

5. During the same period, the system experienced pro rata operating expenses of approximately $15,700. The depreciation and amortization for the system (on a pro rata basis) was approximately $14,100, and the interest expense for the system (also on a pro rata basis) was approximately $12,600.

6. During 1992, therefore, the Wilsonville system had a net loss of $10,400.

7. The FCC benchmark methodology would require Triax to reduce the revenues from regulated services in the Wilsonville system by approximately $4,400, for a net loss of $14,800.

8. In the event Triax decreased its rates (and revenues) by $4,400, the system's net loss would increase to the point where revenues would not cover all of the current interest expense associated with the system, excluding (non-cash) depreciation and amortization charges.

9. In order to comply with the FCC's rules, by September 1, 1993, Triax must take one of three steps: (1) cease its operations in the system, forcing it to cut off service to all of the system's subscribers; (2) roll back its rates to benchmark levels which will reduce its revenues as

11. If this were a stand-alone system, the inability to meet the system's interest expenses would require serious consideration to shutting the system off. On the other hand, although Triax believes that any reasonable cost-of-service analysis would justify the system's existing rates (and even a substantial increase), Triax has no assurance at this time that what it considers a reasonable cost of service analysis will be employed. And the FCC has indicated that cable systems (including Triax) may be required to make a refund to subscribers back to September 1, 1993, for any charges above those justified by the FCC's analysis. Therefore, if Triax chooses to retain its current rates based on a cost-of-service analysis, it runs the risk that its net losses could be even

Exhibit J

DECLARATION OF MICHAEL J. POHL

I, the undersigned, hereby declare under penalty of perjury that the following is true and correct to the best of my knowledge, information and belief.

Douglas Communications Corp. II ("Douglas") manages five limited partnerships, which, as of March 3, 1993, owned and operated cable television systems consisting of a total of approximately 468 franchises and approximately 414 headends which served approximately 102,000 subscribers. However, approximately 406 of Douglas' 414 headends were for franchises serving less than 1,000 subscribers ("Small Systems"). In fact, as of March 3, 1993, Douglas' Small Systems served an average of only 191 subscribers and provided an average of 16 activated channels. The areas served by Douglas' Small Systems have an average density of less than 41 homes passed per mile and 24 subscribers per mile with an average penetration of 60%.

Douglas continues to expend substantial time and monies in a good faith effort to understand the Federal Communications Commission's ("FCC") 500-page May 3, 1993, Report and Order, including the extensive worksheets, instructions, and forms, as well as the FCC's numerous other pronouncements implementing the 1992 Cable Television Act. Since the FCC's regulations are very complex, it has been necessary for Douglas' limited personnel to spend an inordinate amount of time aside from their normal duties to begin calculating the benchmarks prescribed by the FCC. Even the deferral to October 1 was no guarantee that Douglas would be able to complete these analyses by the

benchmark levels if the as yet undefined cost-of-service showing does not justify existing rates. Douglas, like many other similarly situated small systems, requires additional time to complete the calculations and conduct the analysis necessary to calculate the impact of and to comply with the FCC's regulations. The Commission should not require compliance with the benchmarks until the parameters of the cost-of-service alternative are defined.

Douglas has suffered under the rate freeze that has been in effect since April 5, having had to forego scheduled, staggered, annual rate increases of approximately 5 percent since April. For Douglas Cable Communications L. P. ("DCCLP"), for example, which operates 316 cable systems serving a total of approximately 60,000 subscribers in the states of Kansas, Missouri, Nebraska, Illinois, and Iowa, the revenue loss from budgeted rate increases amounts to $56,362 a month.

These planned rate increases are essential to the company to maintain debt service coverage ratios under existing credit agreements. The following table compares expenses for DCCLP for the first six months of 1992 and 1993.

	1st 6 Months 1992	1st 6 months 1993	% Change
Plant Operations Expense	$ 624,644	$ 672,996	7.74%
Programming Fee Expense	1,529,482	1,714,698	12.12%
Total Operating Expenses */	4,516,824	4,794,851	6.16%
Total Non-Operating Expense **/	5,232,030	5,467,211	4.50%
Loss	$1,674,683	$1,771,208	5.77%

As evident from this table, DCCLP's loss in the first half of 1993 has increased since 1992 by $95,525, which is 5.77 percent..

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*/ Includes Plant Operations and Programming Expense

**/ Includes Interest, Depreciation, and Amortization

As a result of not being able to increase rates as planned DCCLP cannot cover its increased expenses. This fact, plus the current uncertainty about the ultimate effect of rate regulation has forced DCCLP to defer capital expenditures. For the year 1993, DCCLP had budgeted system rebuilds of $160,500, equipment to increase channel capacity of $947,900, and traps to permit additional levels of service of $458,900. So long as the freeze continues, DCCLP

Exhibit K

DECLARATION

I, Vince King, hereby declare under penalty of perjury that the following is true and correct to the best of my knowledge, information and belief:

ACI Management, Inc. ("ACI") manages systems in Brookshire, Waelder, Chimney Hill, Fulshear, Prairie View, Moulton, Ponder and Argyle, Texas. The average number of subscribers for these systems is 266 and the systems serve a total of approximately 2,000 subscribers. The average number of subscribers per community unit is 152. These systems offer an average of 24 channels of regulated service.

Approximately one year ago, ACI was brought in to turn around and manage these systems, which have suffered net losses for the last five years. Through ACI's efforts, the systems' net losses have begun to decrease. However, as demonstrated by the chart below, compliance with the FCC's benchmarks would substantially increase the systems' net losses. The systems currently operate under a forbearance agreement with their lender. Any reduction in operating revenue would violate multiple revenue and cash flow covenants in the forbearance agreement. Furthermore, such violations could cause the systems to go into bankruptcy, and ultimately cause deactivation of the systems. This loss of service

New billing requirements will more than double the cost of customer billing as ACI goes from yearly coupon bills to monthly statements.

Vincent King
President
ACI Management, Inc.

Dated: July 28, 1993.

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Petition for Stay were hand-delivered this 11th day of July, 1993 to:

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Washington, D.C. 20554

Commissioner Ervin S. Duggan
Federal Communications Commission
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Commissioner Andrew C. Barrett
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